

AMENDMENTIn the Claims

Please amend the claims as follows:

1. (Currently Amended) A multiple electrode for measuring electro-physiological characteristics of a biological specimen, comprising:
a plurality of micro-electrodes provided on a first region on a substrate;
and
a reference electrode provided in a second region on the substrate,
wherein the reference electrode includes at least one stimulus reference electrode for applying an electrical signal to the plurality of micro-electrodes, and
wherein the biological specimen is placed in such a manner as to overlap with the first region and not to overlap with the second region.
2. (Currently Amended) A multiple electrode according to claim 1, wherein the reference electrode includes at least one measurement reference electrode for detecting an electrical signal from the plurality of micro-electrodes, and the at least one stimulus reference electrode is electrically insulated from the at least one measurement reference electrode.
3. (Currently Amended) A multiple electrode according to claim 1 or 2, wherein the second region is placed at a distance from an outer edge of the first region, and surrounds the first region.
4. (Cancelled)
5. (Currently Amended) A multiple electrode according to claim 3 or 4, wherein the distance is set to a value such that an electrical signal generated from a micro-electrode receiving an applied electrical signal is detected, and electrical noise generated from a micro-electrode receiving no applied electrical signal is not detected.
3. (Currently Amended) A multiple electrode according to ~~any of claims 2 to 5~~ claim 2, including a plurality of stimulus reference electrodes and a plurality of measurement reference electrodes, and the plurality of stimulus reference

electrodes or the plurality of measurement reference electrodes are substantially symmetrically provided with respect to a center of the first region.

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7. (Currently Amended) A multiple electrode according to ~~any of claims 1 to 6~~
claim 1, wherein the plurality of micro-electrodes are arranged in a matrix within the first region.

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8. (Currently Amended) An integrated cell installer comprising a multiple electrode according to ~~any of claims 1 to 7~~ claim 1, wherein the integrated cell installer has a cell installing region for placing a biological specimen on the substrate of the multiple electrode.

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9. (Original) A cellular potential measuring apparatus comprising:
an integrated cell installer according to claim 8; an output signal processor connected to the micro-electrodes for processing an output signal due to an electro-physiological activity of a biological specimen; and a stimulus signal provider for optionally providing an electrical stimulus to the biological specimen.

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10. (Original) A cellular potential measuring system comprising: a cellular potential measuring apparatus according to claim 9; and an optical monitoring apparatus for optically monitoring a biological specimen; and/or a cell culture apparatus for controlling the culture environment of the biological specimen.